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heat your home, not the planet!

INSTRUKCJA OBSŁUGI **NAGRZEWNICY NA OLEJ UNIWESALNY HP-115 I HP-125**

USER MANUAL **UNIVERSAL OIL HEATER HP-115 AND HP-125**

LUFTERHITZER FÜR **MB-ÖL HP-115/HP-125 BEDIENUNSANLEITUNG**

ИНСТРУКЦИЯ ЭКСПЛУАТАЦИИ **НАГРЕВАТЕЛЯ НА УНИВЕРСАЛЬНОМ МАСЛЕ МОДЕЛИ HP-115 И HP-125**

PL

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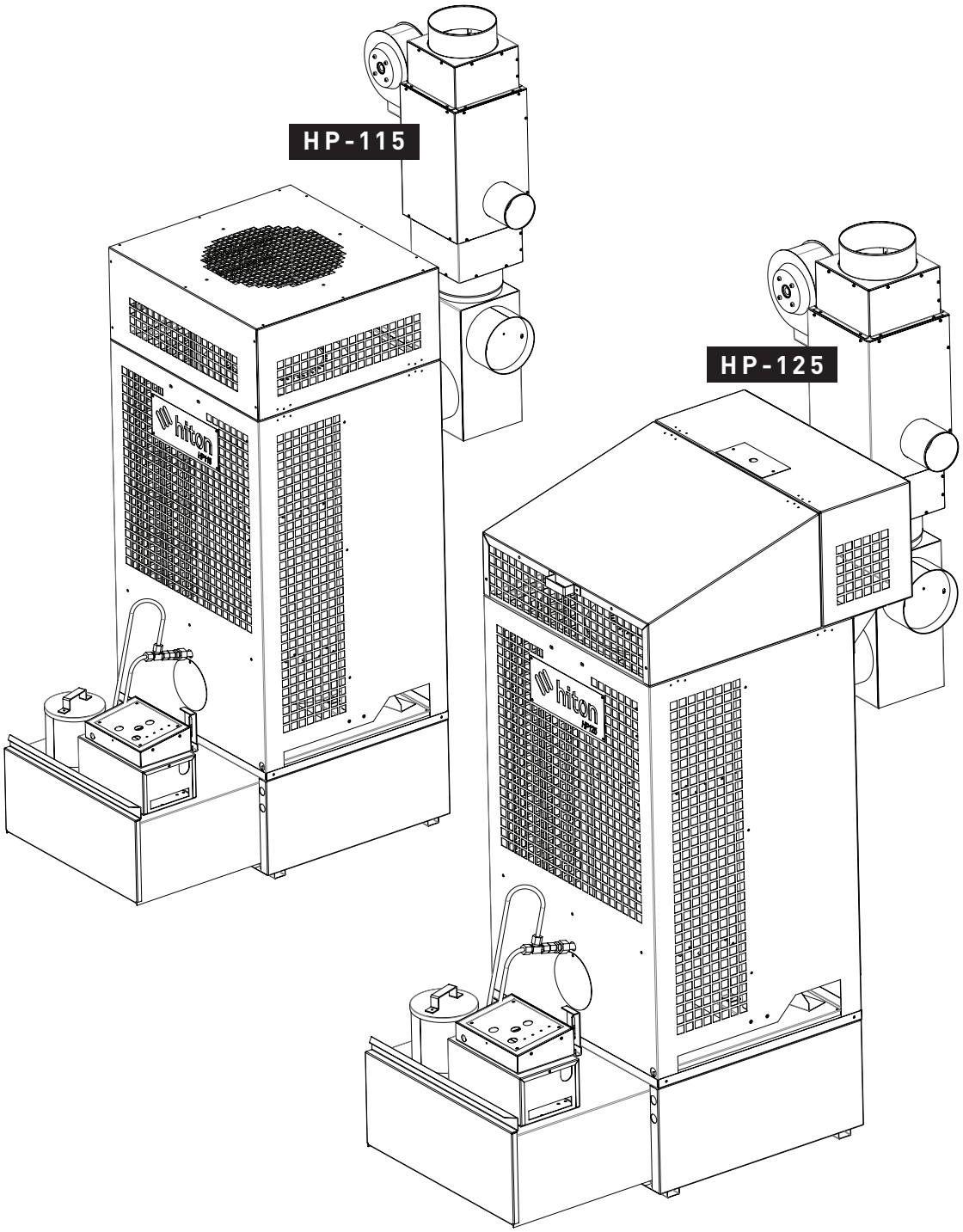

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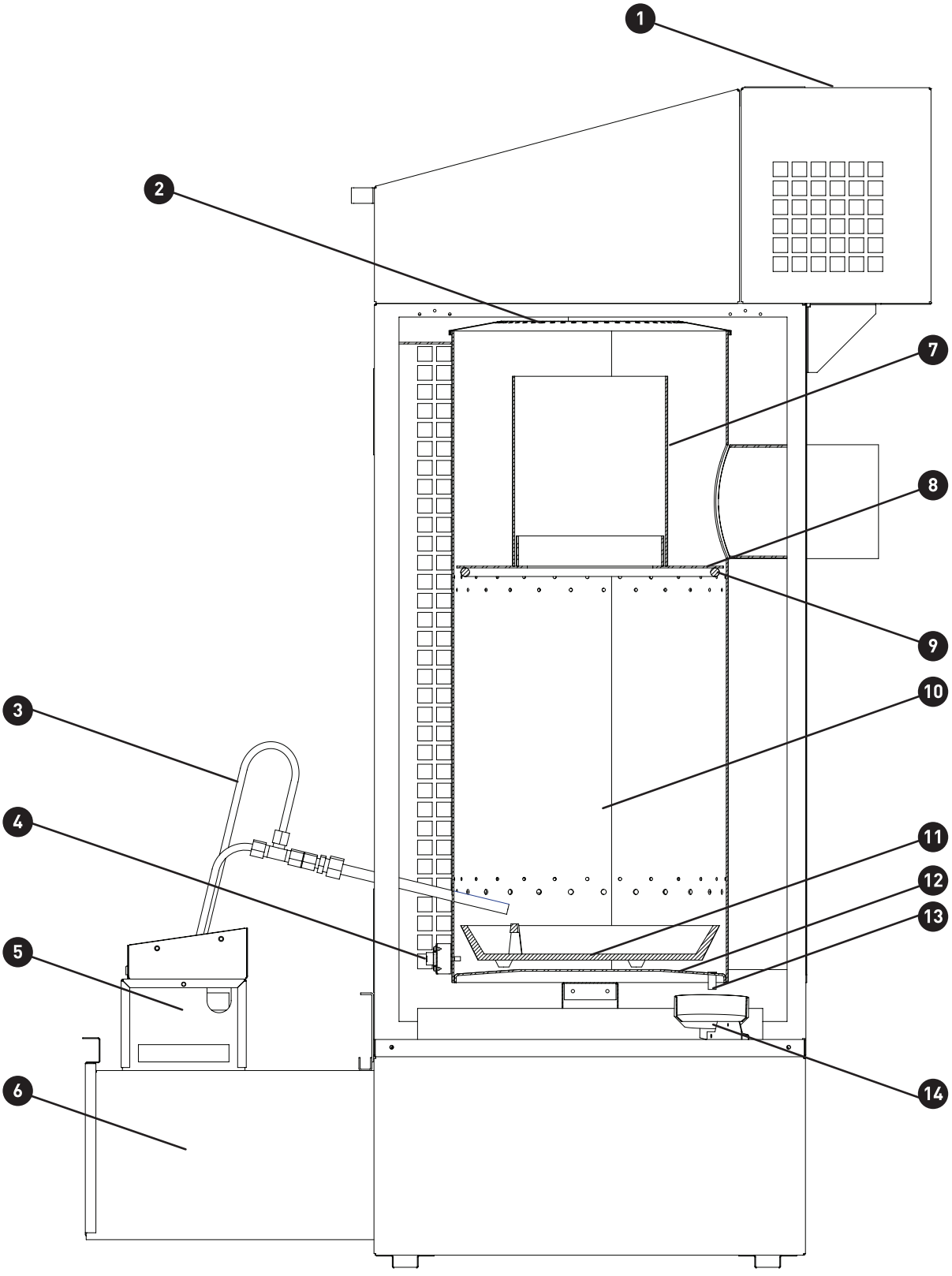

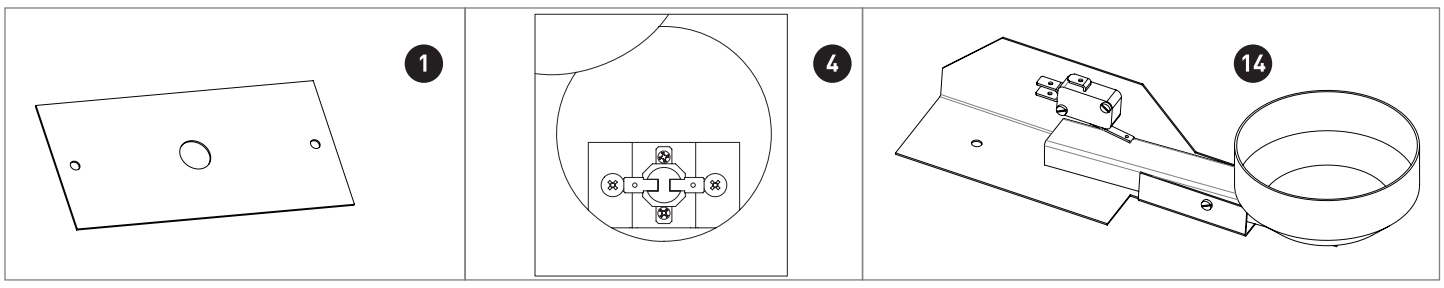

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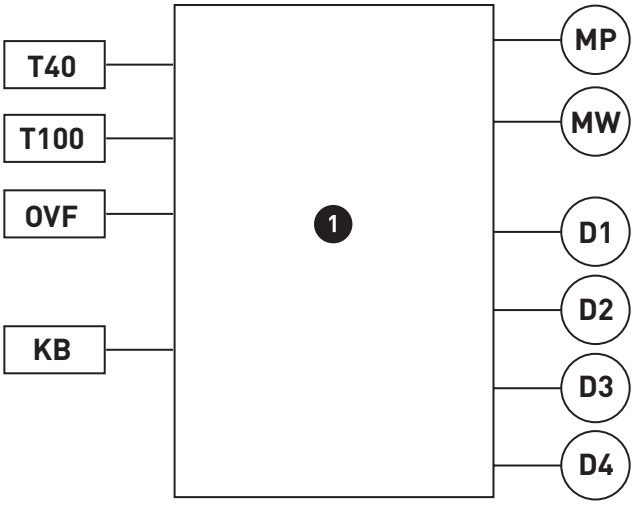
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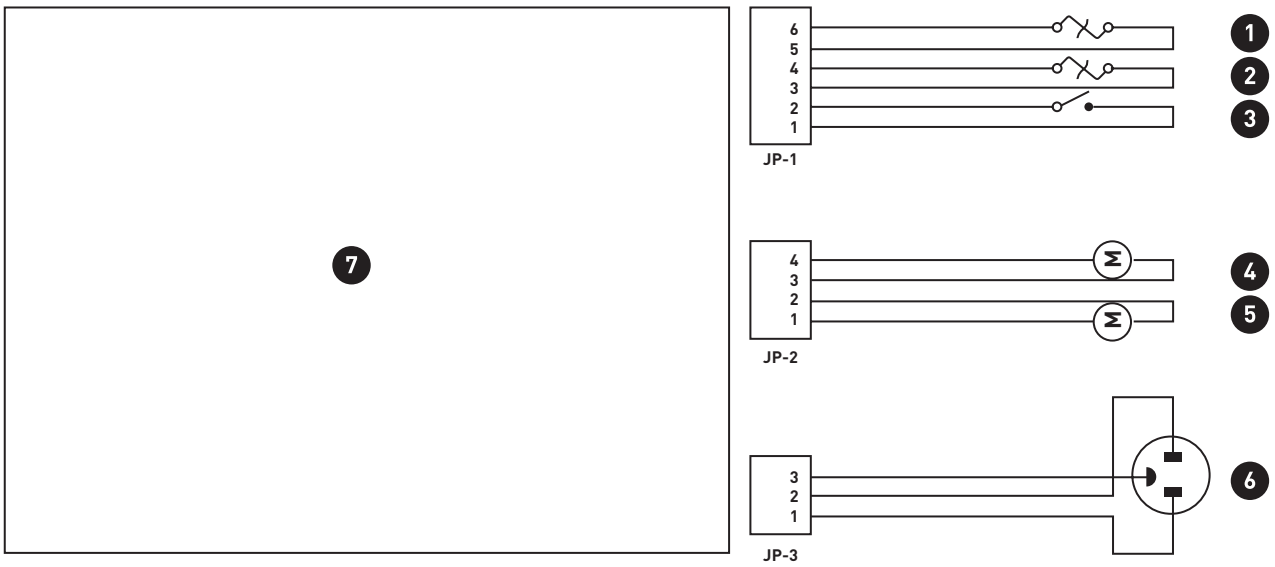
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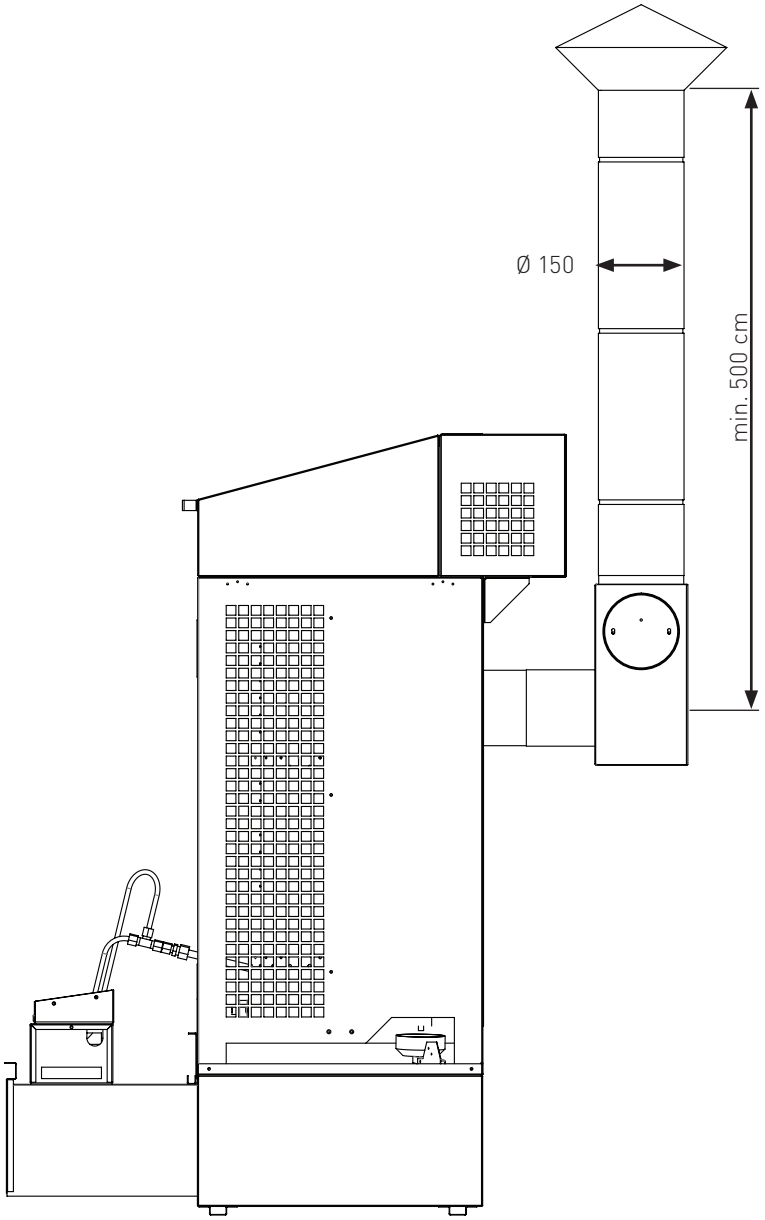

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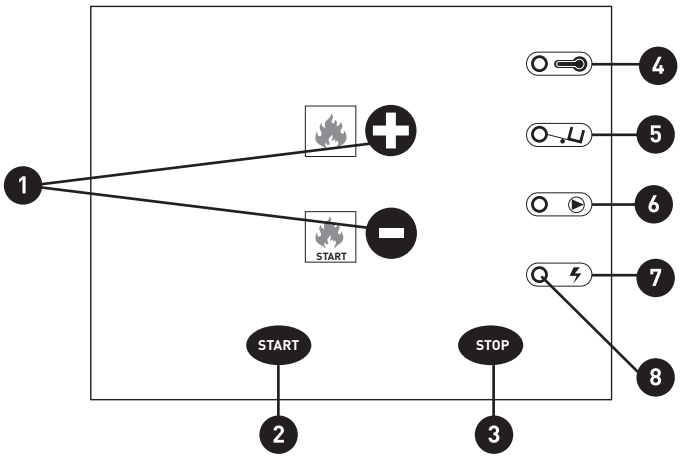

Please read the following instruction carefully in order to make sure that the heater is used properly and does not cause malfunction.

1. Use

HP-115 and HP-125 universal oil heater are suitable for heating big size buildings without central heating (shops, service stations, industrial buildings, warehouses, inventory buildings, basements, garages, etc.) The heater runs on most oils of mineral and plant origin, such as motor oils, heating oil, gear oils, hydraulic oils, HBO I, II, III oils with maximum kinematic viscosity 6.00 mm²/s at a temperature of 20°C and maximum ignition temperature not lower than40°C and density above 0.94 g/cm³.

In light of binding regulations in some countries it is recommended that diesel oil, heating oil or biodiesel be used.

Not to be used with transformer (insulating) oils. They may contain substances that can damage the heater

2. Storage conditions:

HP-115 and HP-125 universal oil heaters should be stored in the following conditions:

temperature	-20-85°C
relative humidity	5-85%
pressure	800-1200hPa
free of dust	⌄
free of chemical pollutants	⌄

3. Conditions for use:

HP-115 and HP-125 universal oil heaters should be operated under the following conditions:

temperature	0-30°C
relative humidity	5-85%
pressure	800-1200hPa
environmental impact protection	IP20
appropriate ventilation of heated area	⌄

4. Characteristics of the control panel:

- the heater may be regulated and set at **15 and 22kW (HP-115) or 22 and 30 kW (HP-125)**,
- protection against overheating the burner,
- protection against overflow of oil in the burner,
- automatic retaining of previous settings in case of power failure,

5. Safety measures:

HP-115/HP-125 universal oil heater is connected to 230V/50Hz alternating current network. A fuse element (1A, 250V) was installed in the casing of the control panel. The fuse should always be replaced with the power (230V/50Hz) switched off.

HP-115 /HP-125 universal oil heater is equipped with two bimetallic sensors assuring safe and effective functioning of the device.

Bimetallic sensor (see figure 4 of the instruction) in the burner triggers reaction in form of clenching contacts when the temperature in burner rises above 40°C and opening of contacts when the temperature falls below 35°C. In cases such as overheating or oil overflow, processor controls the signal from the bimetallic sensor and activates ventilating fan until the burner cools down to the temperature below 35°C.

Second bimetallic sensor (see figure 1 of the instruction) is installed next to the blower fan with threshold temperature set at 90°C. Clenching of contacts, when threshold temperature is exceeded, causes that the burner immediately switches into the overheating mode (see point. 8 of the instruction).

The heater is also equipped with weigh sensor placed under the overflow tank (the so-called overflow fuse).

When the tank is filled, the heater immediately switches into the overflow mode (see point 8 of the instruction).

The control panel of the heater is factory-connected with other elements of the system (such as sensors, pump, and fan) and it is a safety requirement that during regular use there be no interference with covered and sealed part of the control panel as well as integrity of wiring. Any interference of unauthorized person may cause an electric shock (230V/50Hz) and burns.

6. Construction of theater

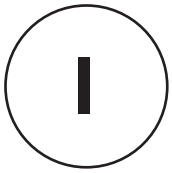

Figure 1:

	Terms:
1	Overheating control
2	Burner lid
3	Oil feed line
4	Burner chamber thermostat
5	Pump and control panel
6	Fuel tank
7	Cylinder
8	Ring
9	Wire ring
10	Combustion chamber
11	Vaporising pan
12	Combustion chamber basin
13	flow gauge
14	overflow fuse

Figure 2: Diagram of HP-115 and HP-125 universal oil heater

T40	Bimetallic sensor of burner's temperature
T100	Bimetallic thermostat (STB)
OVF	Overflow fuse
MP	Pump (48W (230V AC, 50Hz))
MW	Fan (35W (230V/50Hz), capacity 600 m³/h (HP-115), capacity l000 m³/h (HP-125)
KB	Keyboard
D1	Heater overheating indicator
D2	Overflow tank indicator
D3	Pump engine rotational speed indicator
D4	Heater turn on/off indicator
1	

Figure 3: Control panel

	Terms:
1	burner thermostat
2	STB bimetallic thermostat
3	overflow fuse
4	fan
5	pump
6	230V, 50 Hz
7	control panel HP-125

7. Installation

When installing the heater, all local regulations are to be complied with, including regulations referring to national norms.

1. Place the heater on flat surface made of concrete.

2. Level the device in order to check if the heater is levelled correctly, place the vaporising pan in the lower part of the combustion chamber and pour a small amount (approximately 250ml) of diesel oil onto it. The oil should stay exactly in the middle of the pan.

3. Install current stabilizer (valve) on the combustion chamber's outlet pipe in order to maintain constant draught inside the pipe during the operation.

4. Install at least six meters long, smooth and temperature resistant horizontal flue (not aluminium flue) in order to provide optimum draught.

5. Check tightness of all joints, if necessary use the insulation tape.

6. Make sure that the vaporising pan is placed centrally in the combustion chamber.

7. Place the upper ring inside the combustion chamber with flange facing upwards and install the hot air pipe.

8. Check the power (220-240V/50Hz) and connect the heater to the power outlet. Neither fan nor the pump should become active because the burner has not been switched on and the heat has not been produced yet.

9. The heater should be placed away from combustible materials

! Ventilation fans working in the same room or area as the heater may cause disruptions.

Fitting the flue

To ensure the right combustion appropriate fitting of the flue in necessary. The following recommendations should be adhered to when fitting the flue:

Minimum flue diameter - 150mm.

Check tightness of joints between flue elements.

Minimum flue height- 6m.

The inside of the flue should be insulated (double skinned).

The tube should be in free air (the tip of the flue should be above the rooftop).

If possible, all sections of the flue should be in vertical position, horizontal positioning should be avoided, as well as bending of the flue. However, if it is necessary to bend a flue (for example a flue bent in two places when it runs through a wall or a window), the maximum angle is 45° with minimum height of the flue increased to 7m.

Minimum flue draught of 16Pa with nominal heat.

The device cannot be connected to the joint combustion outlet system.

! CAUTION!

When installing the combustion outlet system it is recommended not to place flues in horizontal position. In order to guarantee free movement of gases, the angle of flue should not exceed 45°. The flue outlet must be above the rooftop.

Flues running through the ceiling, walls or the roof, must be insulated in order to prevent fire. It is recommended to use double skinned flue in places where the flue is likely to be touched by the general public and on the outside of the building in order to guarantee good draught and prevent condensation. No materials should be placed close to the heater, even incombustible ones. Free air movement should be provided to assure proper combustion process.

Figure 4: Fitting the flue

8. Functionning

Control panel

The control panel of HP-115and HP-125 universal oil heater is equipped with four buttons enabling the user to control the operation of the heater and four diodes signalling the operating modes of the device.

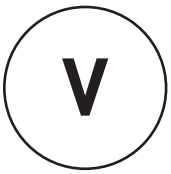

Figure 5: ..

	Terms:
1	heater output control
2	on switch
3	off switch
4	overheat control STB
5	Vaporising pan overflow control
6	pump control
7	heater readiness for use
8	LED diodes

The device operates in the following modes:

Stop	Device ready for use
Heating up	Preliminary operating phase
In operation	The device is working normally
Shutting off	The device is shutting off
Overheating	Contingency switching off
Tank overflow	Contingency switching off

The heat is produced during gas combustion when oil is heated up to a high temperature. When connecting the heater to power network, the device is in stand-by mode (Stop). Heat is not produced and fan and pump are not working. Pressing the Start button triggers the green diode to turn on and the heater goes into the heating up mode. Once the burner is heated up to 40°C the joints of thermostat placed next to combustion chamber clutch activating the oil inlet pipe and blower fan; these are signalled by the yellow diode on the control panel. At the beginning smaller amount of oil is required for at least 30 minutes, when the burner has not been heated up, and the device should work on its first gear (on the screen displayed as "-" – yellow diode is dim). During this time, the pump feeds the combustion chamber with approximately 1.25 kg/h (HP-115) or 1.85 kg/h (HP-125) of oil. After 30 minutes, we may shift to second gear (on the screen displayed as "+" – yellow diode is bright), during which time the chamber is supplied with approximately 1.85 kg/h (H-P115) or 2.55 kg/h (HP-125) of oil.

The heater is switched off by pressing Stop button on the control panel. The pump is switched off (yellow and green diodes on the control panel go off). Ventilation fan works until the temperature in the chamber falls below 35°C (Shutting off). After the temperature in the chamber has fallen below 35°C, the burner switches to the Stop mode.

The heater may switch off automatically if the combustion chamber is overheated or in case of overflow.

Overheating signal is generated by the bimetallic thermostat located close to the fan. Opening of joints signals that the threshold temperature has been exceeded. Control system turns the pump off (pump indicator, yellow diode, goes off) and overheating is signalled when a red diode on the control panel switches on. Ventilation fan works until the temperature in the chamber falls below 35°C. After the temperature in the chamber has fallen below 35°C, the burner switches to the Stop mode

Once the heater is in the Stop mode (and even after switching off and subsequently switching on the device) the overheating signal is on. This enables the user to find out what caused the heater to stop.

In order to reset the overheating signal and regain normal functioning of the device, one should wait until the burner cools off completely (ventilation fan switches off) and press the button on the casing of bimetallic thermostat. Then press Start button, which will cause the overheating diode to go off. The heater may be switched on again.

Overflow signal is generated by a mechanic sensor located underneath the overflow tank. Opening of joints signals that the tank is overflow. At the same time the pump is switched off, the pump indicator goes off, and the red diode signalling overflow switches on. Ventilation fan works until the temperature in the chamber falls below 35°C. After the temperature in the chamber has fallen below 35°C, the burner switches to the Stop mode. The overflow tank is to be emptied, and then Start button should be pressed, which will cause the red overflow diode to go off. The heater may be switched on again.

9. How to operate the heater

CAUTION!

Oil must not be poured into the burner if

The chamber or the pan is still hot!!! Always wait until the burner has cooled down. Non-compliance with the above warning may cause explosion of oil vapours and burns!!!

How to operate the device

Once engaged, the heater switches to desired modes depending on settings chosen by the user and information transmitted by sensors connected to the control panel.

If necessary, water may be poured from the tank and replaced with used oil.

Plug into the power socket (230V/50Hz).

Pull the upper part of the cover aside and take the burner lid off, take the cylinder and the ring out (if necessary, clean thoroughly the vaporising pan and its base, the burner, cylinder and ring). Check if the vaporising pan is cool and clean, and then pour approximately 250 ml of heating or diesel oil onto it.

Light oil using a piece of scrunched up paper that needs to be put on fire and thrown onto the vaporising pan.

Install ring and cylinder, put the burner lid back on, close the upper part of burner's casing.

Press Start button on the control panel (green diode turns on)

After approx. 10-15 minutes, depending on the temperature in the room, the fuel pump and ventilation fan will start and the yellow pump diode will

turn on at the same time. The heater starts working on the lowest gear with lower performance and can continue operating in this mode on a continuous basis:

15 kW; 1.25 kg/h – HP-115 and

22 kW; 1.85 kg/h – HP-125

The second gear, with increased performance can be activated by selecting "**+**" on the control panel:

22kW; 1.85 kg/h – HP-115 and

30 kW; 2.55 kg/h – HP-125

Each time Stop button is pressed followed by pressing the Start button during operation will result in switching into the Heating up mode of the burner.

Shutting off

Press Stop on the control panel (yellow diode goes off), pump stops feeding fuel onto the vaporising pan, and ventilation fan works only until the burner has cooled off.

The device must not be unplugged for as long as the ventilation fan is working, this can be done only after the burner has cooled down. The burner switches off automatically. Please remember that after switching off the device, the cast-iron pan remains hotter for longer (depending on the temperature in the room) and the heater cannot be re-engaged until it cools down completely.

Maintenance

The burner requires various maintenance works. Following producer's recommendations regarding maintenance will assure failure-free and safe functioning of the device.

Vaporising pan and elements of the combustion chamber (cylinder, ring and lid) should be cleaned daily.

Check if the oil overflow pipe is unobstructed (this pipe is located in the lower part of the combustion chamber, directly above the overflow tank), and clean if necessary.

Clean the burner basin located inside the combustion chamber at least once a week (burner basin is located under the vaporising pan).

Check if air inlets in the lower and upper part of the combustion chamber are not obstructed.

Clean the oil feed line once a week, maximum time of operation without cleaning the line feeding oil onto the vaporising pan is approximately 7-14 hours (depending on the type of oil used for heating).

Clean the fuel tank and oil pump filters during heating season.

If the heater is not used for a longer period of time, the combustion chamber and the tank should be cleaned thoroughly, and then covered with a thin layer of oil in order to prevent corrosion.

It is recommended to have all maintenance works done each seazon by an authorised dealer

10. Failures and their remedies

In case of a failure of the device, the following list may help identify its cause and remedy. Generally, it should be easy to fix. The following are the most common problems. Digits represent possible causes. The order of digits suggests gradation of probable cause of the failure.

CAUTION!

Unplug the device before starting to fix the problem.

FAILURE	CAUSE
Pump does not work and the pump indicator does not turn on	**6 - 3 - 7**
Flame goes off while the pump is still working	**2 - 5 - 9 - 10 - 12**
Combustion chamber makes noise	**10 - 11 - 12**
There is soot in the chamber and on the flue	**8 - 9 - 10 - 11 - 12**
There is unburned oil left on the vaporising pan or too much diesel oil during switching on	**8 - 9 - 11 - 12**

No	CAUSE	REMEDY
1	No power supply	Check if the device is plugged in correctly and check the fuse.
2	Water or residues in the tank.	Clean the tank and filter
3	Pump engine does not turn on	Check STB and overflow fuse.
4	The engine and pump do not turn on.	Fuel is too thick or too cold. Dilute with diesel oil. Check the pump thermostat and replace, if necessary. Check the engine in order to determine if the pump is not dirty inside. Check STB and overflow fuse.
5	Oil pipe is blocked, oil flows back to the tank through return pipe	Clean the oil pipe and replace, if necessary.
6	Pump thermostat did not reach desired temperature.	Wait until the burner cools down and relight. Replace the thermostat.
7	Overflow fuse is full	Clean
8	Security thermostat (STB) does not work correctly or does not work at all	Reset the thermostat Replace
9	Insufficient air supply for heating	Clean air inlets in the combustion chamber. Check the fan
10	Draught problems	Check if the flue is installed according to "Fitting the flue" Check tightness of the flue Clean, if necessary
11	The draught in the flue is too strong or changing	Install the draught stabiliser and set at 2 mm W.C. (16 Pa).
12	The draught in the flue is too weak.	Check all joints. Minimize the number of bends Extend the flue Insulate the flue on the outside of the building Read information about the flue in this guide.

TECHNICAL SPECIFICATIONS:

		HP115	HP125
Minimum heating performance	kW	15	22
Maximum heating performance	kW	22	30
Minimum oil consumption	kg/h	1,25	1,85
Maximum oil consumption	kg/h	1,85	2,55
Heated air flow	m3	600	1000
Power supply	V/Hz	230/50	230/50
Power intake	A	0,6	0,6
Flue diameter	mm	150	150
Width	cm	54	85
Height	cm	137	137
Length	cm	75	54
Weight	kg	90	90

CE

ABIZA
Poland, 05-825 Grodzisk Mazowiecki
Opypy, ul.Jemiołowa 2

08
EN 1
Type: HP 115
Distance from combustible materials: 140 cm
Class: 5
Heating performance: 22 kW
Fuel type: Diesel oil
Electric security: complied with

EC DECLARATION OF CONFORMITY

Manufacturer: ABIZA

Address: 05-825 Grodzisk Mazowiecki
Opypy, ul.Jemiołowa 2, Poland

Product: Marka: HP
Model: HP-115

We herby declare In sole responsibility that the designated product fulfills the safety requirements of the European Directives.

Directives: 2006/95/WE
Dyrektywą niskonapięciową (LVD)
2004/108/WE
Dyrektywą Kompatybilności Elektromagnetycznej (EMC)
89/106/WE
Dyrektywą Wyroby Budowlane

Standards applied:

PN-EN 1, PN-EN 1:2001/A1, PN-EN 60335-1, PN-EN 60335-1-102, PN-EN 55014-1:2007, PN-EN 55014-2:1999+A1:2004+IS1:2007, PN-EN 55014-1:2004, PN-EN 61000-3-2004+ A2:2005, PN-EN 61000-3-3:1997+A1:2005+A2:2006, PN-EN 55014-1, PN-EN 61000-4-2: 1999+A2:2003, PN-EN 61000-4-4:2005, PN-EN 61000-4-6:2007, PN-EN 61000-4-5:2006, PN-EN 61000-4-11:2007, PN-EN 61000-3-3:1997+A1:2002(U)

CE marking was made in: 2008 r.

Declaration issued by: ABIZA

Place, date: Opypy, 12.08.2008

Andrzej Białous
właściciel firmy

Signature of authorized person

CE

ABIZA
Poland, 05-825 Grodzisk Mazowiecki
Opypy, ul.Jemiołowa 2

08
EN 1
Type: HP 125
Distance from combustible materials: 140 cm
Class: 5
Heating performance: 30 kW
Fuel type: Diesel oil
Electric security: complied with

EC DECLARATION OF CONFORMITY

Manufacturer: ABIZA

Address: 05-825 Grodzisk Mazowiecki
Opypy, ul.Jemiołowa 2, Poland

Product: Marka: HP
Model: HP-115

We herby declare In sole responsibility that the designated product fulfills the safety requirements of the European Directives.

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89/106/WE
Dyrektywą Wyroby Budowlane

Standards applied:

PN-EN 1, PN-EN 1:2001/A1, PN-EN 60335-1, PN-EN 60335-1-102, PN-EN 55014-1:2007, PN-EN 55014-2:1999+A1:2004+IS1:2007, PN-EN 55014-1:2004, PN-EN 61000-3-2004+ A2:2005, PN-EN 61000-3-3:1997+A1:2005+A2:2006, PN-EN 55014-1, PN-EN 61000-4-2: 1999+A2:2003, PN-EN 61000-4-4:2005, PN-EN 61000-4-6:2007, PN-EN 61000-4-5:2006, PN-EN 61000-4-11:2007, PN-EN 61000-3-3:1997+A1:2002(U)

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Place, date: Opypy, 12.08.2008

Andrzej Białous
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Signature of authorized person